

REMARKS

SUMMARY:

The subject application sets forth claims 1-20, of which claim 1 is an independent claim.

The Detailed Action dated May 19, 2005 alleges that all claims 1-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication 2001/0056362 A1 (Hanagan et al.) in view of the 1993-1994 Annual Review of Communications article entitled "Customer Billing Technology and Issues" by Charlie H. T. Boyd (Boyd).

The above prior art rejection is respectfully traversed. Detailed arguments in support of such traversal are presented in the following section. In light of such remarks, Applicants respectfully request withdrawal of the prior art rejection and allowance of the subject claims.

35 U.S.C. §103(a) REJECTION (CLAIMS 1-20):

Original claim 1 sets forth a customer care and billing system that includes, in part, a system comprising a distributed component architecture including components attributed in correspondence to relevant services offered (wherein relevant services correspond to desired customer care and billing processes), wherein the components are able to communicate with each other directly via interfaces.

The feature of having direct communication among components as set forth in claim 1 is quite significant. As described on page 4, lines 8-13 of the present application, when components are able to communicate with each other directly via

interfaces (as opposed to through a database server as disclosed in Hanagan et al. and other previous systems), a more flexible configuration of business logic is facilitated so that customer demands can be fulfilled with a minimum number of implementations modifications. Furthermore, such a system can flexibly and easily be adapted to an increasing amount of processing data.

The May 19, 2005 Office Action sets forth a brief characterization of Hanagan et al. and aptly notes on numbered page 3 that Hanagan et al. “fails to explicitly disclose that the components communicate with each other directly via interfaces”. In attempt to cure this deficiency, the Office Action applies the disclosure of Boyd, alleging that such latter reference discloses a “close interaction” between the billing operations applications, the in-effect service record, the customer service record, and the billing systems. The Examiner further submits that from this teaching of Boyd, one of ordinary skill in the art would have been motivated to modify the billing and customer care system of Hanagan et al. to include the allegedly direct interface or interaction as taught by Boyd.

Applicants respectfully submit that the Examiner’s characterizations of Boyd are inappropriately applied and that Boyd and Hanagan et al. still fail to disclose singularly or in combination all features of present claim 1, especially the communication among components in a direct fashion via interfaces.

First and foremost, to satisfy the requirement of claim 1 that components communicate directly via interfaces, the Examiner points to a “closely tied interaction” among certain elements in Boyd. Applicants submit that a closely tied interaction cannot be assumed to be a direct interface as set forth in present claim 1. The word

“close” as defined by the Third Edition of The New American Webster Dictionary includes the meaning of “near to”. Thus, when the Office Action position assumes that “close” interaction teaches direct communication, it goes well beyond the actual scope of any disclosure or suggestion of Boyd. Using---improperly---such a standard and approach, even **indirect** communication could be considered the same as “closely tied” interaction, and that is clearly not the case.

In further support of the premise that “close interaction” as referred to in Boyd corresponds to at most only an **indirect** interaction, please refer to Figure 8 of such reference, entitled “ISR Close Interaction with CRIS/CABS/SOP (Transway).” If the close interaction is supposedly perceived as between the ISR (Transway) module of Figure 8 and the CRIS/CABS modules of Figure 8, it should be noted that such modules are **NOT** linked directly, but are **indirectly coupled** via a customer service record (CSR) module. Applicants respectfully urge that a “records” module in such context is comparable to a database-type module. As such, communication between the ISR module and the Billing Systems module of Boyd is **via a central database** (the CSR module).

If billing operations applications (OAs), as also illustrated in Figure 8 of Boyd, are to communicate with the billing systems module, such modules **must** be linked through two “records” or database-type modules (i.e., both the ISR and CSR modules).

The foregoing facts means that the technology disclosed in Boyd is **closer to the recognized prior art systems** (described in the subject application as being connected to and communicating **through a central database**) than it is to the subject matter set forth in present claim 1.

Based on the above remarks, Applicants respectfully submit that Boyd fails to cure the recognized deficiencies of Hanagan et al. Furthermore, Hanagan et al. and Boyd fail to singularly **or even in the proposed combination** disclose all elements of present claim 1, particularly that the components as set forth are able to communicate with each other **directly** via interfaces. Accordingly, such references cannot by law serve to render claim 1 unpatentable, and acknowledgement of the same is earnestly solicited.

Claims 2-20 also stand rejected under 35 U.S.C. §103(a) as being unpatentable. Since such claims respectively depend from otherwise believed allowable claim 1 and further limit same, claims 2-20 should also be allowed.

With regards to claim 2, such claim is directed to a customer care and billing system that is divided into at least two hierarchically arranged layers having an increasing degree of abstraction. Claim 2 also sets forth that any lower layer isolates the above layer from the lower layers so that details of implementations of the lower layers are hidden from the layers above.

Numbered page 3 of the May 19, 2005 Office Action sets forth that Hanagan et al. disclose that the system is divided into at least two layers (as illustrated in Fig. 23) of such reference. Referring to page 20, paragraph [0316] of Hanagan et al., the classes depicted in Fig. 23 going from the bottom to the top of the diagram progress from generality to specificity, and that at each level, the functions are used to support processing that is resident in higher layers. Such description merely reflects inherent features of a layered hierarchy, and does not describe or suggest in any fashion the specific subject matter of claim 2 reflected by limitation that the layers in such a

customer care and billing system are arranged with an increasing degree of **abstraction** wherein any lower layer isolates the above layer from lower layers so that details of implementation of lower layers are hidden from the layers above. Such specific arrangement---whereby each layer is advantageously isolated from the complicated matters of the underlying layers---offers a high degree of flexibility and independence in accordance with the customer care and billing system of claim 2, especially since the communication between layers can be implemented only via the use of standard interfaces. (See page 12, lines 23-25 of the original specification.)

Hanagan et al. fail to disclose all elements of claim 2. Boyd does not cure the above-noted important deficiencies of Hanagan et al. relative to claim 2 subject matter. Since Hanagan et al. and Boyd fail to disclose singularly or even in the proposed combination all elements of claim 2, such references cannot by law serve to render claim 2 unpatentable. As such, Applicants submit that claim 2 contains allowable subject matter, and reversal of the rejection of such claim under 35 U.S.C. §103(a) is respectfully requested.

With regard to claims 7, 9-13, 14-15 and 18-19, Applicants respectfully submit that the May 19, 2005 Office Action simply omits pointing out how the subject matter in such claims is allegedly disclosed in either or both of Hanagan et al. and Boyd. In connection with such practices, pertinent USPTO Rules, 37 C.F.R. § 104(c)(2) sets forth that:

"In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the

applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.”

Since the May 19, 2005 Office Action plainly omits pointing out how the subject matter in claims 7, 9-15 and 18-19 is disclosed in the cited references, such Office Action is inadequate to establish a prima facie case of obviousness, in accordance with the requirements of the patent statute and rules regarding claim examination.

Especially given the relative complexity of the references, the burden of proof for the USPTO to show how every element of each respective claim is disclosed in the cited references, has not been met.

As already noted in the previously submitted Appeal Brief for this application, there have been no specifics in any issued Office Action for this case (whether before or after such apparently effective appeal brief) that describes one or more particular parts of the cited references that are relied upon for a rejection of claims 7, 9-15 and 18-19.

As such, Applicants respectfully submit that such claims should be regarded as patentable: “A person **shall be entitled to a patent** unless [properly proven otherwise by the USPTO].... 35 U.S.C. Section 102 (introduction)(emphasis added).

CONCLUSION:

For at least the reasons set forth above, Applicants respectfully submit that the present application, including claims 1-20, is in complete condition for issuance of a formal Notice of Allowance, and action to such effect is earnestly solicited. The Examiner is invited to telephone the undersigned at her convenience should only minor

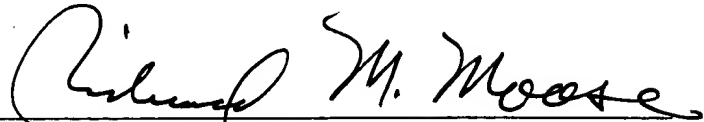
issues remain after consideration of this response in order to permit early resolution of same.

Respectfully submitted,

DORITY & MANNING,
ATTORNEYS AT LAW, P.A.

Date:

Aug. 19, 2005

A handwritten signature in cursive script, appearing to read "Richard M. Moose", written over a horizontal line.

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